

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A system for providing an internet protocol (IP) address to an IP enabled device, the IP address allowing enabling the IP enabled device to obtain IP services available within the access provider network independent of an internet service provider (ISP), comprising:

an internet access provider network comprising a plurality of managed Open Systems Interconnection (OSI) model layer 2 and layer 2/3 communications elements;

the IP enabled device connected to the access provider network via a network access device and being capable of communicating with the ISP via the access provider network and network access device in communication with the provider network via an access device; and

an IP aware e-center residing in the access provider network comprising a host configuration server in communication with the provider network, the e-center comprising an additional layer 3 communications element in communication with a host configuration server and one of the provider network layer 2/3 communications elements,

the host configuration server providing the network access device a first IP address for obtaining IP services available offered within the access provider network, and the network access device providing the IP enabled device a second IP address for obtaining IP services available offered within the access provider network independent of the ISP.

2. (Currently amended) The system of claim 1, wherein the IP enabled device comprises an IP telephone, the access provider network further comprises a telephone network gateway, and the e-center further comprises a call agent for coordinating operations of the IP telephone and telephone network gateway public switched telephone network (PSTN) gateway in communication with the provider network layer 2/3 communications element, and the e-center further comprises a call agent in communication with the e-center layer 3 router for coordinating the operations of the IP telephone and the PSTN gateway.

3. (Original) The system of claim 1, wherein the IP enabled device comprises a personal computer.

4. (Original) The system of claim 1, wherein the IP enabled device comprises an IP enabled appliance.

5. (Currently amended) The system of claim 1, wherein the e-center further comprises a user network management system ~~in communication with the additional layer 3 communications element.~~

6. (Currently amended) The system of claim 1, wherein the e-center further comprises a streaming media server ~~in communication with the additional layer 3 communications element.~~

7. (Currently amended) The system of claim 1, wherein the access provider network further comprises a broadband access interface ~~in communication with the one provider network layer 2/3 communications element.~~

8. (Original) The system of claim 1, wherein the IP enabled device resides on a local area network (LAN) in communication with the network access device.

9. (Original) The system of claim 8, wherein the network access device utilizes Network Address Translation (NAT) protocol to provide the second IP address.

10. (Original) The system of claim 1, wherein the host configuration server comprises a Dynamic Host Configuration Protocol (DHCP) server.

11. (Original) The system of claim 1, wherein the host configuration server comprises a Remote Authentication Dial In User Service (RADIUS) server.

12. (Currently amended) A method for allowing an Internet Protocol (IP) IP enabled device to obtain IP services available within an access provider network independent of an Internet Service Provider (ISP) ISP, comprising:

generating a first IP address at an element in an access provider network;
sending the first IP address to another element in communication with the
access provider network;
generating a second IP address at the other element; and
communicating the second IP address to the IP enabled device, the second IP
address being in addition to an IP address provided by the ISP and allowing the IP enabled
device to obtain IP services available within the access provider network independent of the
ISP.

~~providing a communication link between an IP aware e-center and a layer 2/3~~
~~communications element within the access provider network, the e-center comprising a layer~~
~~3 communications element in communication with a host configuration server;~~

~~providing a first communication link between the IP-enabled device and an~~
~~access device;~~

~~providing a second communication link between the access device and the~~
~~layer 2/3 communications element; and~~

~~transmitting a first IP address to the device from the host configuration server~~
~~over the first and second communication links via the access device~~

13. (Currently amended) The method of claim 12, wherein the first IP address is
generated at an IP aware e-center and the second IP address is generated at a network access
device ~~transmitting step comprises transmitting the first IP address to the access gateway over~~
~~the second communication link, generating at the access gateway a second IP address, and~~
~~transmitting the second IP address to the IP-enabled device over the first communication link.~~

14. (Currently amended) The method of claim 13, wherein the generating the second
IP address is accomplished using Network Address Translation (NAT) NAT protocol.

15. (Currently amended) A method for simultaneously enabling a first of a plurality of Internet Protocol (IP) ~~IP~~ enabled devices to obtain IP services available ~~only~~ within an access provider network and a second of the plurality of IP enabled devices to obtain IP services available through an Internet Service Provider (ISP) ~~ISP~~, ~~the IP-enabled devices residing on a LAN with an access drive, the access provider network comprising a managed network layer 2 and layer 2/3 communications elements~~, comprising:

generating a first IP address within the access provider network for obtaining IP services available within the access provider network;

communicating the first IP address to a network access device in communication with the plurality of IP enabled devices;

communicating a second IP address to the network access device, the second IP address allowing IP enabled devices to obtain IP services available through the ISP by way of an access provider network;

generating third and fourth IP addresses at the network access element, the third IP address allowing IP enabled devices to obtain IP services available within the access provider network, the fourth IP address allowing IP enabled devices to obtain IP services through the ISP by way of the access provider network; and

communicating the third IP address to the first IP enabled device, and the fourth IP address to the second IP enabled device

~~providing a first communication link between an IP-aware e-center and a first one of the access provider network layer 2/3 communications elements, the e-center comprising an additional layer 3 communications element in communication with a host configuration server;~~

~~providing a second communication link between a second one of the access provider network layer 2/3 communications elements and the ISP;~~

~~providing a third communication link between the access device and the first access provider network layer 2/3 communications element;~~

~~transmitting a first IP address to the first enabled device from the host configuration server, the first IP address providing access to the services available only within the access provider network; and~~

~~transmitting a second IP address to the second IP enabled device from the ISP network, the second IP address providing access to the services available through the ISP.~~

16. (Currently amended) The method of claim 15, wherein the generating a first IP address step comprises generating the first IP address at host configuration server residing within the access provider network ~~transmitting a first IP address step comprises transmitting the first IP address to the access device, generating at the access device a third IP address, and transmitting the third address to the first IP enabled device.~~

17. (Currently amended) The method of claim 15 ~~16~~, wherein the third IP address is generated using Network Address Translation (NAT) ~~NAT~~ protocol.

18. (Cancelled).

19. (Currently amended) The method of claim 15 ~~18~~, wherein the fourth IP address is generated using Network Address Translation (NAT) ~~NAT~~ protocol.

20. (Currently amended) A system for establishing a plurality of simultaneous Internet Protocol (IP) ~~IP~~ service sessions over a single connection to an access provider network, comprising:

 a plurality of IP enabled devices in communication with ~~and~~ an access gateway ~~residing on a LAN~~; and

 an ingress ~~layer 2/3~~ communications element within the access provider network in communication with the access gateway;

 the access gateway and ingress ~~layer 2/3~~ communications element adapted to recognize and redirect data based on the presence of ~~recognition~~ multiple instances of point-to-point (PPP) ~~PPP~~ frames being sent ~~transmitted~~ to and from the IP enabled devices simultaneously by way of the access gateway.

21. (Currently amended) The system of claim 20 wherein the access gateway and ingress ~~layer 2/3~~ communications elements are is further adapted to ~~simultaneously~~ recognize

and redirect data based on the presence of recognition at least one instance of IP packets being transmitted to and from at least one of the IP enabled devices by way of the access gateway.

22. (Currently amended) A method for providing Internet Protocol (IP) personalized IP services to an IP enabled device ~~residing on a local area network (LAN) with an access device, the access device~~ in communication with an access provider network via a network access device, comprising:

~~providing communicating~~ a first IP address to the network access device, the first IP address for use by the network ~~allowing the~~ access device to communicate with a first plurality of IP service devices through an Internet service provider (ISP), the ISP being in communication with the access network;

~~providing communicating~~ a second IP address to the network access device, the second IP address for use by the network ~~allowing the~~ access device to communicate with a second plurality of IP service devices in the access provider network;

~~providing communicating~~ a third IP address to the IP enabled device, the third IP address for use by the ~~allowing the~~ IP enabled device to communicate with the network access device ~~send and receive IP packets over the LAN~~;

receiving communications ~~IP traffic~~ from the IP enabled device at the network access device;

determining ~~at the access device~~ whether the communications ~~IP traffic~~ received at the network access device is addressed to one of the second IP service devices;
and

forwarding the communications ~~IP traffic~~ to the one of the second IP service devices with the second IP address as a return address if the determining step is positive; ~~and~~

~~forwarding the IP traffic to the ISP with the first address as the return address if the determining step is negative.~~

23. (Currently amended) The method of claim 22 wherein the providing ~~communicating~~ a second IP address step comprises leasing the second IP address to the network access device using Dynamic Host Configuration Protocol (DHCP) ~~DHCP~~.

24. (Currently amended) The method of claim 22 wherein the providing ~~communicating~~ a second IP address step comprises leasing the second IP address to the network access device using Remote Authentication Dial In Server (RADIUS) protocol RADIUS.

25. (Currently amended) The method of claim 20 wherein the providing ~~communicating~~ a third IP address comprises generating a third IP address at the network access device using Network Address Translation (NAT) protocol and sending ~~transmitting~~ the third IP address to the IP enabled device ~~over the LAN~~.

26. (New) The method of claim 22 further comprising the step of forwarding the communications received at the network access device to the ISP with the first IP address as the return address if the determining step is negative.